

IN THE ABSTRACT

Please delete the current Abstract in its entirety and
substitute therefor the enclosed New Abstract.

IN THE SPECIFICATION

Please amend the specification as follows:

Replace the paragraph on page 5, between lines 1-4 of the specification with the following:

The new assembly of optical keyboard and optical input device may be used in different applications, such as in a mobile phone, a cordless phone, a laptop computer, a hand-held computer, a keyboard for a desk computer and a remote control for a TV set, ~~as claimed in claims 13-18.~~

Replace the paragraph on page 15, between lines 4-16 of the specification with the following:

As remarked herein above, the frequency of the laser radiation modulation, which is due to finger movement across the window is dependent on circumstances and, for example, in the order of a few kHz to 1 MHz. It has been found that in case the finger rests on the window, the laser radiation will also be modulated, but at a frequency considerably lower than the scroll frequency. This low-

frequency modulation can be detected by means of an additional detector (photo diode) denoted by 102 in Fig. 10 Fig. 11, which is arranged such that it receives a portion of the modulated radiation. The amount of radiation incident on the photodiode 102 may be set by arranging a beam splitter (not shown), for example a partly reflection mirror, in the path of the measuring beam. This beam splitter reflects a fixed portion of the measuring beam radiation towards the additional photodiode. The additional photodiode is coupled to the laser drive and signal processing circuit 100 circuit 98. This circuit can thus establish whether a click action does occur or not, thus whether the measured movement is a click movement or a scroll movement.

Replace the paragraph on page 19, between lines 26-34 of the specification with the following:

FIG. 17 shows a first embodiment 180 of an optical keyboard wherein an input device is integrated. The optical input device comprises a diode laser and photo diode assembly 182 and a device window 186. The assembly 182 is arranged in the keyboard light guide 140 so that the measuring beam 184 emitted by the diode laser

propagates through the light guide 140. The assembly 152-182 may also contain lens means (not shown) to collimate the measuring beam. Before the device window 186 lens means (not shown) may be arranged in the measuring beam path to converge the measuring beam on the device window. The measuring beam is guided along the positions of all keys by means of mirrors 190-195 before it arrives at the window.

Replace the paragraph spanning pages 20-21, between page 20, line 33, and page 21, line 13 of the specification with the following:

FIG. 18 shows an embodiment 200 of the optical keyboard with integrated input device, which comprises two diode lasers 202, 204 and associated photo diodes (not shown). The input device can be used for measuring a click movement and scroll movement either along one axis or along two axes. The keys 125 are now distributed over two groups. The condition of the keys of the first group, the lower group in FIG. 18, is now measured by means of diode laser 202 and the associated detector. The measuring beam 206 from this diode laser is guided along the positions of the keys of the first group

by means of mirrors 210 and 212 and is then directed to the device window 186 by means of the mirrors 214 and 216. Diode laser 204 and the associated detector are used to measure the condition of the keys of the second group of keys, the upper group in FIG. 18. The measuring beam 208 is guided along the positions of these keys by means of the mirrors 218 and 220 and is then directed to the device window by means of the mirrors 222 and 224. In this embodiment the position of a pressed key is obtained by determining for which one of the measuring beams the radiation path is interrupted and measuring the number of zero-order undulations in the detector signal associated with this measuring beam.

Replace the paragraph on page 21, between lines 14-29 of the specification with the following:

FIG. 19 shows an embodiment 230 of the optical keyboard with an integrated optical input device, which comprises three diode lasers 232, 234, 236 and associated photo detectors (not shown). The keys 125 are now distributed over three parallel groups. The diode lasers are arranged relative to the groups such that the measuring beams 238, 239 and 240 pass the positions of the keys of

the first (left hand) group, the second (central) group and the third (right hand) group, respectively. Measuring beam 239 is directly incident on device window 186 and measuring beam 238 and measuring beam 240 is directed to this window by means of mirror 244 and mirror 246, respectively. As in the embodiment of FIG. 18, the position of a pressed key is obtained by determining for which one of the measuring beams the radiation path is interrupted and measuring the number of zero-order undulations in the detector signal associated with this measuring beam. The measuring beams 238, 239 and 240 can be used to measure scroll movement in the X direction, a scroll movement in the Y direction and a click movement in the Z-direction, respectively. It is also possible to use one or two measuring beams to measure both a scroll movement and a click movement and to use the third measuring beam for obtaining additional information, for example to enhance the reliability with which one of the movements is measured.